

underpinning and framed into the building superstructure has its lower end unrestrained against rotation and supported on the top surface of upper pad with the help of a self-lubricating spherical foot bearing. When an earthquake strikes, the earthquake protector permits horizontal excursions of the footing relative to the mostly stable superstructure thus preventing any sizable lateral deformations in the building.

3. I agree with your quotation from 35 USC § 103(a).

4. I strongly disagree that Claim 1 can be unpatentable over:

- **Japan 3-169984** due to the following reasons: a) the top and bottom surfaces of the slide tracks per Claim 1 are of the same curvature while those surfaces per **Japan 3-169984** have the signs of curvature opposite to each other; b) the smooth sliding tracks per Claim 1 are ideal to minimize transmission of shear forces from the earth to the building structure while the tooth gear per **Japan 3-169984** is, usually, meant to transmit as much power between components of a machine as possible. Therefore, a perfect performance of earthquake protectors is proven (see <http://www.ecs.csun.edu/~shustov/EP-2005.htm>) while **Japan 3-169984** will not, most likely, work at all.
- **Yaghoubian 4726161** and **Tada 4188681** due to the fact that those patented devices are dealing with the ball bearings while Claim 1 describes cylindrical rollers, which is a BIG difference!

Conclusion

There is no reason to believe that the prior art may compromise the novelty of the Earthquake Protector. The first public presentation of this new technology took place on July 6-9, 2004 at the International Symposium on Smart Structures Technologies and Earthquake Engineering (Shustov, V. et al., 2004, "Earthquake Protector: A New Line of Seismic Base Isolation", *Proc. Smart Structures Technologies and Earthquake Engineering*, SE04-006, Osaka, Japan). Since then, nobody has ever cast any doubt in the worldwide novelty of Earthquake Protector.

August 8, 2005

 Valentin Shustov